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(54) Title: **PROCESS FOR LOADING AND THERMODYNAMICALLY ACTIVATING DRUGS ON POLYMERS BY MEANS OF SUPERCRITICAL FLUIDS**

(57) Abstract: The present invention refers to a process of loading drugs in a thermodynamic activated form into polymers by means of supercritical fluids. The process includes a pre-treatment step of the cross-linked polymer with pure supercritical fluid to allow a higher degree and a more rapid kinetic of drug loading into cross-linked polymers and also a higher thermodynamic activation of the drugs.